

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/760,470A
Source: 1Fw16
Date Processed by STIC: 2/3/06

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 02/03/2006

PATENT APPLICATION: US/10/760,470A

TIME: 11:49:15

Input Set : A:\1204-DIV SUBST_SEQLIST JAN06.TXT

Output Set: N:\CRF4\02032006\J760470A.raw

```

4 <110> APPLICANT: SHAO, Wei et al.
6 <120> TITLE OF INVENTION: ISOLATED HUMAN KINASE PROTEINS, NUCLEIC
7     ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES
8     THEREOF
10 <130> FILE REFERENCE: CL001204-DIV
12 <140> CURRENT APPLICATION NUMBER: 10/760,470A
13 <141> CURRENT FILING DATE: 2004-01-21
15 <150> PRIOR APPLICATION NUMBER: 09/820,790
16 <151> PRIOR FILING DATE: 2001-03-30
18 <160> NUMBER OF SEQ ID NOS: 30
20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 2218
24 <212> TYPE: DNA
25 <213> ORGANISM: Homo sapiens
27 <400> SEQUENCE: 1
28 cgggcgcgccg ggcggcgcgcg gtgacagcgcg cgcccgcgcc tcccccgcgcg taggtgtgcg 60
29 gcgcgctcct ggcgaggacg gagcgagcag atctcgcggtg cgctcgccgc ccggcgcgagc 120
30 ccagcccggc ccccgccctgg cgcccgcgagc cgaggtgtct ccccgcgcccg cgcccggtgtc 180
31 gccgcccgtg ccgcgagcgg gagccggagt cgcccgccgc cgagcgcgagc cgagcgcgagc 240
32 ccgagcccgt ccgcgcgcgc catggccacc acggtgacct gcacccgctt caccgacgag 300
33 taccagctct acgaggatat tggcaagggg gctttctctg tgggtccgacg ctgtgtcaag 360
34 ctctgcaccg gccatgagta tgcagccaag atcatcaaca ccaagaagct gtcagccaga 420
35 gatcaccaga agctggagag agaggctcgg atctgccgcc ttctgaagca ttccaacatc 480
36 gtgcgtctcc acgacagcat ctccgaggag ggcttccact acctgggtctt cgatctggtc 540
37 actggtgggg agctctttga agacattgtg gcgagagagt actacagcga ggctgatgcc 600
38 agtcaactgta tccagcagat cctggaggcc gttctccatt gtcaccaaag gggggtcgtc 660
39 cacagagacc tcaagccgga gaacctgctt ctggccagca agtgcaaagg ggctgcagtg 720
40 aagctggcag acttcggcct agctatcgag gtgcaggggg accagcaggc atggtttggt 780
41 ttcgctggca caccaggcta cctgtcccct gaggtccttc gcaaagaggc gtatggcaag 840
42 cctgtggaca tctgggcatg tggggtgatc ctgtacatcc tgctcgtggg ctaccaccc 900
43 ttctgggacg aggaccagca caagctgtac cagcagatca aggctgggtg ctatgacttc 960
44 ccgtcccctg agtgggacac cgctactcct gaagccaaaa acctcatcaa ccagatgctg 1020
45 accatcaacc ctgccaaagc catcacagcc catgaggccc tgaagcaccg gtgggtctgc 1080
46 caacgctcca cggtagcatc catgatgcac agacaggaga ctgtggagtg tctgaaaaag 1140
47 ttcaatgcca ggagaaagct caaggagacc atcctcacca ccatgctggc cacacggaat 1200
48 ttctcagtg gcagacagac caccgctccg gccacaatgt ccaccgcggc ctccggcacc 1260
49 accatggggc tgggtggaaca agccaagagt ttactcaaca agaaagcaga tggagtcaag 1320
50 cccagacga atagcaccaa aaacagtgc gccgccacca gcccacaaagg gacgcttcct 1380
51 cctgccgccc tggagcctca aaccaccgtc atccataacc cagtggacgg gattaaggag 1440
52 tcttctgaca gtgccaatac caccatagag gatgaagacg ctaaagcccg gaagcaggag 1500
53 atcattaaga ccacggagca gctcatcgag gccgtcaaca acggtgactt tgaggcctac 1560
54 gcattctact tcgagaacct gctggccaag aacagcaagc cgatccacac gaccatcctg 1620

```

RAW SEQUENCE LISTING

DATE: 02/03/2006

PATENT APPLICATION: US/10/760,470A

TIME: 11:49:15

Input Set : A:\1204-DIV SUBST_SEQLIST JAN06.TXT

Output Set: N:\CRF4\02032006\J760470A.raw

```

55 aacccacacg tgcacgtcat tggagaggat gccgcctgca tcgcttacat ccggctcacg 1680
56 cagtacattg acgggcaggg ccggccccgc accagccagt ctgaggagac ccgcgtgtgg 1740
57 caccgccgcg acggcaagtg gcagaacgtg cacttccact gctcgggcgc gcctgtggcc 1800
58 ccgctgcagt gaagccaagg gaggggcaca gaatggggaa caggacacag gatcctaaac 1860
59 tccaagggga ctgtccaccg atgaacactc agagtggaca ccatcttccg tccacgctgt 1920
60 gcccaggaca gctgtcccca tccatgaaca cagggtaaac atctgccggg ctccgcacca 1980
61 gtggctccct gggccatggg acagcggcag ggctcaccac ggacagcacg tggcccagca 2040
62 gccggccacc ctggcgctct ggggcctcct cccctcctct cctctcacc ttgtcacctc 2100
63 cacggagctg cctgtctggg ataatttggg gatttttttt tctgggggat aattcttttg 2160
64 catgaccctt aaagagcaag ccacaccggt ctgctagcta ggtgtccgcg gtgtggtg 2218

```

66 <210> SEQ ID NO: 2

67 <211> LENGTH: 516

68 <212> TYPE: PRT

69 <213> ORGANISM: Homo sapiens

71 <400> SEQUENCE: 2

```

72 Met Ala Thr Thr Val Thr Cys Thr Arg Phe Thr Asp Glu Tyr Gln Leu
73 1 5 10 15
74 Tyr Glu Asp Ile Gly Lys Gly Ala Phe Ser Val Val Arg Arg Cys Val
75 20 25 30
76 Lys Leu Cys Thr Gly His Glu Tyr Ala Ala Lys Ile Ile Asn Thr Lys
77 35 40 45
78 Lys Leu Ser Ala Arg Asp His Gln Lys Leu Glu Arg Glu Ala Arg Ile
79 50 55 60
80 Cys Arg Leu Leu Lys His Ser Asn Ile Val Arg Leu His Asp Ser Ile
81 65 70 75 80
82 Ser Glu Glu Gly Phe His Tyr Leu Val Phe Asp Leu Val Thr Gly Gly
83 85 90 95
84 Glu Leu Phe Glu Asp Ile Val Ala Arg Glu Tyr Tyr Ser Glu Ala Asp
85 100 105 110
86 Ala Ser His Cys Ile Gln Gln Ile Leu Glu Ala Val Leu His Cys His
87 115 120 125
88 Gln Met Gly Val Val His Arg Asp Leu Lys Pro Glu Asn Leu Leu Leu
89 130 135 140
90 Ala Ser Lys Cys Lys Gly Ala Ala Val Lys Leu Ala Asp Phe Gly Leu
91 145 150 155 160
92 Ala Ile Glu Val Gln Gly Asp Gln Gln Ala Trp Phe Gly Phe Ala Gly
93 165 170 175
94 Thr Pro Gly Tyr Leu Ser Pro Glu Val Leu Arg Lys Glu Ala Tyr Gly
95 180 185 190
96 Lys Pro Val Asp Ile Trp Ala Cys Gly Val Ile Leu Tyr Ile Leu Leu
97 195 200 205
98 Val Gly Tyr Pro Pro Phe Trp Asp Glu Asp Gln His Lys Leu Tyr Gln
99 210 215 220
100 Gln Ile Lys Ala Gly Ala Tyr Asp Phe Pro Ser Pro Glu Trp Asp Thr
101 225 230 235 240
102 Val Thr Pro Glu Ala Lys Asn Leu Ile Asn Gln Met Leu Thr Ile Asn
103 245 250 255
104 Pro Ala Lys Arg Ile Thr Ala His Glu Ala Leu Lys His Pro Trp Val
105 260 265 270

```

RAW SEQUENCE LISTING

DATE: 02/03/2006

PATENT APPLICATION: US/10/760,470A

TIME: 11:49:15

Input Set : A:\1204-DIV SUBST_SEQLIST JAN06.TXT

Output Set: N:\CRF4\02032006\J760470A.raw

```

106 Cys Gln Arg Ser Thr Val Ala Ser Met Met His Arg Gln Glu Thr Val
107          275          280          285
108 Glu Cys Leu Lys Lys Phe Asn Ala Arg Arg Lys Leu Lys Gly Ala Ile
109          290          295          300
110 Leu Thr Thr Met Leu Ala Thr Arg Asn Phe Ser Val Gly Arg Gln Thr
111 305          310          315          320
112 Thr Ala Pro Ala Thr Met Ser Thr Ala Ala Ser Gly Thr Thr Met Gly
113          325          330          335
114 Leu Val Glu Gln Ala Lys Ser Leu Leu Asn Lys Lys Ala Asp Gly Val
115          340          345          350
116 Lys Pro Gln Thr Asn Ser Thr Lys Asn Ser Ala Ala Ala Thr Ser Pro
117          355          360          365
118 Lys Gly Thr Leu Pro Pro Ala Ala Leu Glu Pro Gln Thr Thr Val Ile
119          370          375          380
120 His Asn Pro Val Asp Gly Ile Lys Glu Ser Ser Asp Ser Ala Asn Thr
121 385          390          395          400
122 Thr Ile Glu Asp Glu Asp Ala Lys Ala Arg Lys Gln Glu Ile Ile Lys
123          405          410          415
124 Thr Thr Glu Gln Leu Ile Glu Ala Val Asn Asn Gly Asp Phe Glu Ala
125          420          425          430
126 Tyr Ala Phe Tyr Phe Glu Asn Leu Leu Ala Lys Asn Ser Lys Pro Ile
127          435          440          445
128 His Thr Thr Ile Leu Asn Pro His Val His Val Ile Gly Glu Asp Ala
129          450          455          460
130 Ala Cys Ile Ala Tyr Ile Arg Leu Thr Gln Tyr Ile Asp Gly Gln Gly
131 465          470          475          480
132 Arg Pro Arg Thr Ser Gln Ser Glu Glu Thr Arg Val Trp His Arg Arg
133          485          490          495
134 Asp Gly Lys Trp Gln Asn Val His Phe His Cys Ser Gly Ala Pro Val
135          500          505          510
136 Ala Pro Leu Gln
137          515
140 <210> SEQ ID NO: 3
141 <211> LENGTH: 28438
142 <212> TYPE: DNA
143 <213> ORGANISM: Homo sapiens
145 <400> SEQUENCE: 3
146 gagctgctgt gtctctgtcc ccaggggagc aggggctgtg ggggtgcagg ctcagcgtct 60
147 gggactctgg ggtgaaggct cagccatgcc ctgcagacac catggggcag ggctcagacc 120
148 tgtgcacctg tctcttgcaa accactgttt tctctgtttt gtaaccccc acccaacccc 180
149 acataacacc tctgggttta aacaacatgc acccttgtgc cggtcacctc cctgcagccg 240
150 gagaacctgc ttctggccag caagtgcaaa ggggctgcag tgaagctggc agacttcggc 300
151 ctactatctg aggtgcaggg ggaccagcag gcatggtttg gtgagtgccg ggggcagggt 360
152 gtgttggtcg gcagttggca gggcaggagg tgatgctgac agcccttgtt ggctcttcc 420
153 cctctctcta ggtttcgtcg gcacaccagg ctacctgtcc cctgaggtcc ttgcgaaaga 480
154 ggcgtatggc aagcctgtgg acatctgggc atgtggtgag gcctggcctg agttggtgcg 540
155 gggcagggcc tcgggtgttt caggacttcc cacctacatc ctggagtgtg cagtggccag 600
156 cacgtcttgc tctcatctgg gtttatctgt gtcagacctg cccttgagct gccctggcag 660
157 gggctctgccc acacagccaa gagccccctt tccaccacaga ttagaattgc tcacatgaac 720

```

RAW SEQUENCE LISTING

DATE: 02/03/2006

PATENT APPLICATION: US/10/760,470A

TIME: 11:49:15

Input Set : A:\1204-DIV SUBST_SEQLIST JAN06.TXT

Output Set: N:\CRF4\02032006\J760470A.raw

```

158 ctggcgcacc ccagtgcctc cctgcgctca gcagaggtct ggtccagaag tgtggtgggt 780
159 ggatgggagt ggagaagaga ggtcaggggc tgttgggcca tgggcagggc cacctccttg 840
160 ggtaggggtc tctcccaca gaggtgggga gcagcagagg ggcttgacat caccctcatc 900
161 cctgtgatag tctgggtgtg gggcagaggt cagggggccg gctgtgccct tctacccag 960
162 tgtctgctgc acaggtgggg gcaaaggaat gctgaggacc ccaatgccct cccagggcca 1020
163 caggagctag gcagtgaggg tgcagggcat gggcttcatg gacggtggca ccctgcaagt 1080
164 ggctgcggtg ctacagggc ccatccgcag gggtgatcct gtacatcctg ctctggtggct 1140
165 acccaccctt ctgggacgag gaccagcaca agctgtacca gcagatcaag gctggtgcct 1200
166 atgacgtgag tgcaccagcc cctctctgat gagctccctt cctccaggtg tggcgggtg 1260
167 agggcagcgt ggaagaggc taggagtggg gtgaagccac ctgtggccag gtctggtgc 1320
168 ctgctctccc agattcgtgg ctggagatga agccccttg agaattcttg cccctgctg 1380
169 agagggagct tcagggcccg ccggggcgct gtttcttct gcagttcccg tccctgagt 1440
170 gggacaccgt cactcctgaa gccaaaaacc tcatcaacca gatgctgacc atcaaccctg 1500
171 ccaagcgcac cacagcccat gagggcctga agcaccctg ggtctgcgtg agtcgccctt 1560
172 ggtgcccatt gtggggaggg ggctcctggg ggagatggcc tcagaccact cccctggcaa 1620
173 ggaccccaag agggctcctgt tcttgacatc caagagctcc cttgggtccc ctgggtgctc 1680
174 cttgtggcct ctggcttggg acataccagc acgtttgtga ggctggggc ttggaaggca 1740
175 ttagagggta gaggtgatcc ctctctcca actgcagtc tgtctgtgag gggcagagt 1800
176 gacgaggcaa gggagagacg agtcttgaag tcccaggcgg gtggggacag acaacccttg 1860
177 ccgcaatggt ggccgggtgg tcttggcaag tggggacccc agggtgccac aagccttgcc 1920
178 accctggcct ctccccctgt cctcgggctc ggctgccata tgaccacca tttcccaca 1980
179 gcaacgctcc acggtagcat ccatgatgca cagacaggag actgtggagt gtctgaaaaa 2040
180 gttcaatgcc aggagaaagc tcaaggtgag gccctggccc ctagtcccag gcacggccat 2100
181 gcttctctgt gtccctctgg gctggagcag gggggccttg gggggtctgg gcagacctag 2160
182 gggttactgc tggccccaag actgactgtt agcaagtccc agactggatg catcaggtga 2220
183 actcaggcca gcttgggaat gaggccagag gggccctggg ccaggtgtgg ctctccttag 2280
184 ttgtctgtgc caccctctag cagcccttgg aggagctgtc ctgaagcgtc cgctgtgggc 2340
185 tctcaccg ggctctgcag gcagactca cctctggca gtcacactgt ttagtacaag 2400
186 caagtccgaa gcttccggct cagacagggt tggtaaggag agcagagcca cacacactgg 2460
187 tcttgggtgg gctgggggag ttctgggagg gaggtgggtc ccagtagggg atccaacctg 2520
188 cctgctttgg tcagggctgg ctccggtgac cgcacactgg cagtccctct acttgtgggt 2580
189 tccgggatgg ggacttggtg cctgactgcc ctctgctggg ctctgagcag ttctccccgg 2640
190 aagccccagg actggtgccc tgtctgagcc tgtcaggaaa agaaggggct gtcagggagc 2700
191 tggaccccag aggagctgcc gtggtgacca gctgttctgg tgaccctga ggcttgaggg 2760
192 gtcttgaagc agctagaagc tgtagtggg caacagggtt agggccaggg tgtgtgtagt 2820
193 tctggaaata ggtgatctgt ctcaagtgcg ctgctggctt cctggagctc ttgcctctct 2880
194 ggaaggctga ggtcatgtca gcctcatgac aatgaggctg agcatctggg caggaggaca 2940
195 ggggtcttat cctggccaga agccagcagg gaacactgat gggatagccc cggttttatc 3000
196 tgtgtctctc cccagggagc catcctcacc accatgctgg ccacacggaa tttctcaggt 3060
197 gagcctttct tctccaggga gacaggcgct gccccctccc tgctggccca cgcaggagag 3120
198 cgcctccttc ctaccagcc tctccactcc tctctgcgg caggcctgcc ctcggcgtct 3180
199 gccctcagct ctgagacca ctgcccacct ggccccgctg ggctcccacc ttgggtgata 3240
200 ccacagggtc cagccccccg aggccatcac ctctgtgctg ggtctgtgtc cctccacccc 3300
201 ctgaacacga gcgtctgtgc tggccactg gggctcacag catcgtgtgt gtctgtccag 3360
202 gcgtttgtcg ggcattctat tggcctcctt gtcattttga gtgctctgaa cattgtgttt 3420
203 tgtgcgggag gtgggcagaa gggatgcggg gtgatgcggg aggctcgggg gcctccttcc 3480
204 aagttcttga tgagctgcag cctcctgtcc cggctgctca ggggtgggtg ttgggaagca 3540
205 agttctcttg gcaggggggt ggggtctgtt atagaccctt gagggccagg gcgctggcag 3600
206 acccatcggg gcatgatgtt agccccggag tggagccggc agcccagggtc tggacaagct 3660

```

RAW SEQUENCE LISTING

DATE: 02/03/2006

PATENT APPLICATION: US/10/760,470A

TIME: 11:49:15

Input Set : A:\1204-DIV SUBST_SEQLIST JAN06.TXT

Output Set: N:\CRF4\02032006\J760470A.raw

```

207 gtacctgtgg cttctccgtc gtccgacact ccgtgtgcga gcgtctgtga tccgtctctc 3720
208 tcgttgtecg tttgcatctg gtgcccccca cccgccatcc tgttactttt gctgtgatgc 3780
209 tgtaatgccg ggaacgcgtg cacacggtca caccaacact aataggactg tcctgtctgc 3840
210 tgtgtgctca ccacaccctt tgggcatgag aagcccccac tggggttttc taaggagaaa 3900
211 ggaggcaaat gcttttccgt gtcaatcagt ccaatcttgt ttctactctc ttgagcaaaag 3960
212 gattctggaa ccatctgtca cctaaacttt aactctaate ttcttctgct tcctttgtct 4020
213 cttttcttcc cttacctcgc ccacccctcg tctgtgtccg cccacccctc ccttccccctc 4080
214 gtctctaacc cgggtgtaac agtgggcaga cagaccaccg ctccggccac aatgtccacc 4140
215 gcggcctccg gcaccaccat ggggctggtg gaacaaggta gatgtgtctc gaccagcgtc 4200
216 ccgcccgtc ccgcccgtcc ctctgccag catgcagccc cctgtctgcac gcagccgctg 4260
217 gccgggctcc agagccgccc cagaggccgc caggcccccg ggagccctg ctcccggtgtg 4320
218 gtcacatccc agcagagccc accacaaggg caggggaggca gcccccaagg ctctctgcct 4380
219 gtaagaggag gggctgggct aggtggcccc tgggctacac caagccctc tggctctggc 4440
220 ccccgaggtc tgggggtccg gagaccccca ttaagaatgg cctgggcccc acagggagcc 4500
221 actgggcctg ctgctggggg gtctgaatcc tgaaaggaga gccttgaggga gcagagccag 4560
222 agaggcagag gcccttgggg cagacacaca ccctgcccct ctggggccgc atggagacgg 4620
223 tggctctgtg tgctgagtc tacacatgca tgtctgccct gagcatcccc ccaggacaag 4680
224 ccgctctgga gtgggtgagg gttttatgca ccctgaggag actttcaagg cttcctcttg 4740
225 ggttgtttct gcaaagtcc cctcccctgg cctcaaacc tgtgagggaa aaggccggca 4800
226 ctggccacct gctcctctgg gctgtgcggg gccagagccc agaggcccaa gttggcttct 4860
227 gccacctgc tggcttgtga ccatgggcag acccatgag ggctaggcga cccaagacc 4920
228 tccttgagc tccagcctga gctgaaggct ggtgagagct tagggcaggc caagctgaca 4980
229 acgcttgcc acagaacaca gagggctaca ggggtgacct cagatcctcc ctgggctgag 5040
230 ctgctgagtt ccctgtcggt gcctccaacg tgggctgggg acccggcaga ggttccaggg 5100
231 tgctggagac tgccctcccc aggcctctc atgaccacaa ggggtgagcag cctggccttc 5160
232 ccagccagag aacctcctt ctggggaggc ccagggcgtc ctggggagg gcagtctatt 5220
233 ctccctccat gagccagtg gacgtgtcta gcaggcagca ccccgaggga gccctccac 5280
234 gtcttctcca ttgacaggc ctttccagag cgcaggcggg agggggctgt gattagaaaa 5340
235 gagtgaggct agtggcttct ggggaggcac tgctgccag gggacagtgc tgagagacag 5400
236 ctgcctctac gctgccctgt gcccggggct cccgctgcaa tgcccgctg tctgcaagtg 5460
237 aacgtggggc gacggtgcat gagggcctgc atgtgtggct ccaccctggg cgccgagagc 5520
238 agctctgtcc tggaggggtg tcagtgcagt tggacagagc ccagcatggc tgtcctgggt 5580
239 gaccagctaa ggggacaagg cagaggcagg gctgagagga ccacccatcc tgctaggtca 5640
240 gccagctca gccatatcac acggcagtga gcatggagct cagttctctg ccaatggcag 5700
241 ctgagtctag taccatccag tcagagtctg gtaccagccc atgtggcata gcccctcgg 5760
242 cccgcagaga gaccccgctt gtcgagtgtg cttcagtttg gcctctgtgg tctctcctgc 5820
243 attgatcagg tgtaagggca taggagacct agtgtccggc cagctgcagg gtggcagcag 5880
244 ttgccccggc ctggagacct ggggaatggg agtgccctcc caggatggag ggcagaggg 5940
245 ctctccttgt ccacagagg cctgcagaac cccaaccca ggtgtctgag atgcctgtga 6000
246 ctgctccgcc taccctgggc tcctgcggca cctaacgcat gctttgaact tgagacacag 6060
247 aaaggaagtt cccgtgccct tgaatgctag tgtagatggg catcgacagg actctggcca 6120
248 cgggtgaatc ggagttagtc ccaggcagag atgtgaaatg agcagcccc caaaaaatgg 6180
249 ttggccggga gccatgcact caggagggcc gggcccatgc accccacact gcgccaagg 6240
250 cgtgcacaag cgattgtttt aaaagcgggt tcacaaggaa ggatgtttgg gaactgactg 6300
251 agacaacagg gacgtctgct gcagggcttc ccagagctct gatggcagcg tcggcctgag 6360
252 tccttcgagg agggctgggt tgtacgtggc atttgctgcc cactggactg tgaacttctg 6420
253 tctttttatt tccactgct gctgtggtac atctccagta gcatagtttg gaaatgcagg 6480
254 ttttgataga ctcaaggatc taaatagaac cctcttagta ccaaggactg tccgggggtct 6540
255 ctgccagccc cgccgatggg cctaactgtg gtgcctcctt tcctgtgaga atcttctgag 6600

```

VERIFICATION SUMMARY

DATE: 02/03/2006

PATENT APPLICATION: US/10/760,470A

TIME: 11:49:16

Input Set : A:\1204-DIV SUBST_SEQLIST JAN06.TXT

Output Set: N:\CRF4\02032006\J760470A.raw